Accelerating Improvement in Chronic Illness Care: the Role of IT

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Improving Chronic Illness Care
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Chronic Illness in America

- More than 125 million Americans suffer from one or more chronic illnesses and 40 million limited by them.
- Despite annual spending of $1 trillion and significant advances in care, one-half or more of patients still don’t receive appropriate care.
- Gaps in quality care lead to thousands of avoidable deaths each year.
- Patients and families increasingly recognize the defects in care.

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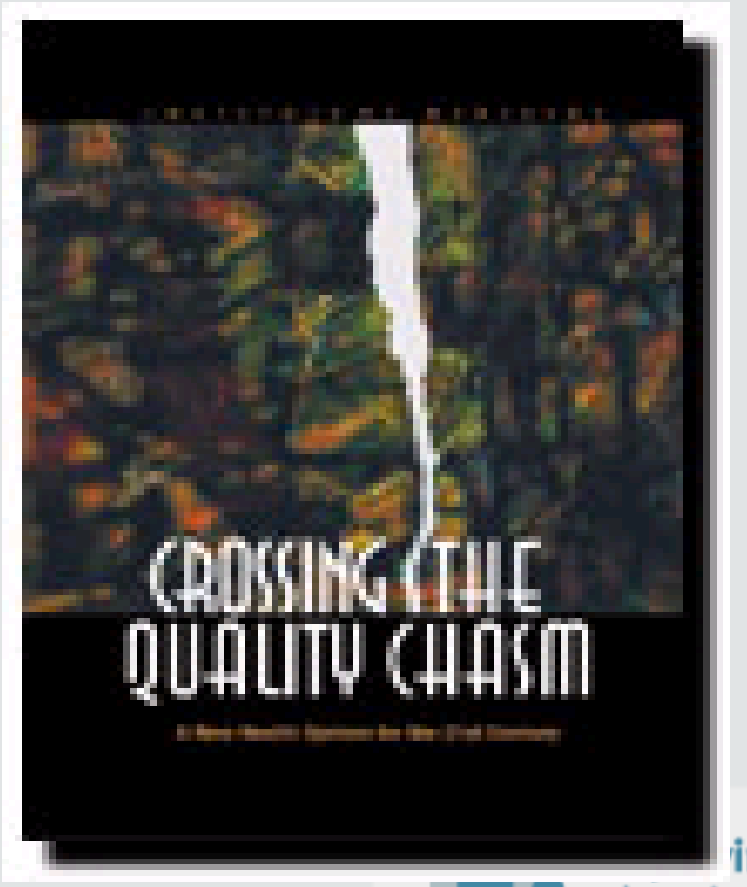
What's Responsible for the Quality Chasm for the Chronically Ill?

- Practice systems oriented to acute disease that aren't working for patients or professionals
- Inadequate use of information technology
- Poorly aligned payment structure



Many seem to believe that IT and payment change (P4P) will be enough?

The IOM Quality Chasm report says:

- "The current care systems **cannot** do the job."
- "Trying harder will not work."
- "Changing care systems will."

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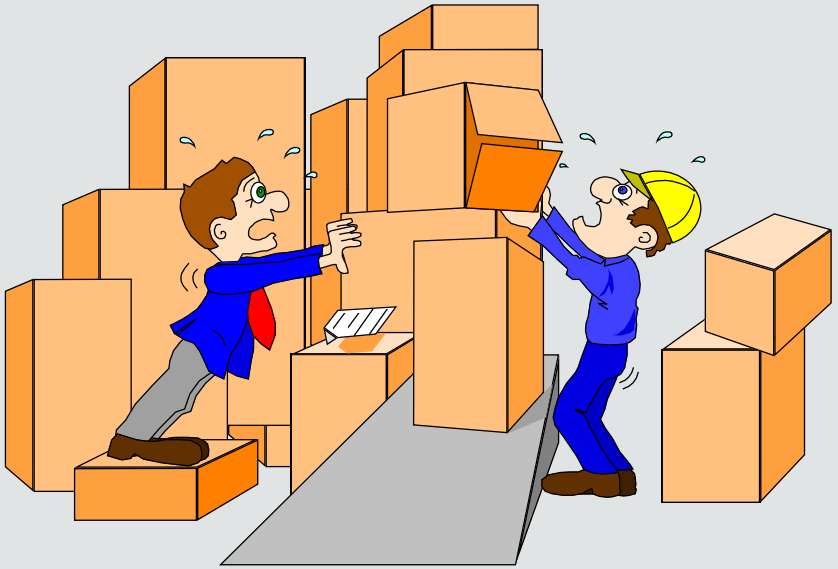
What kind of changes to practice systems improve care?



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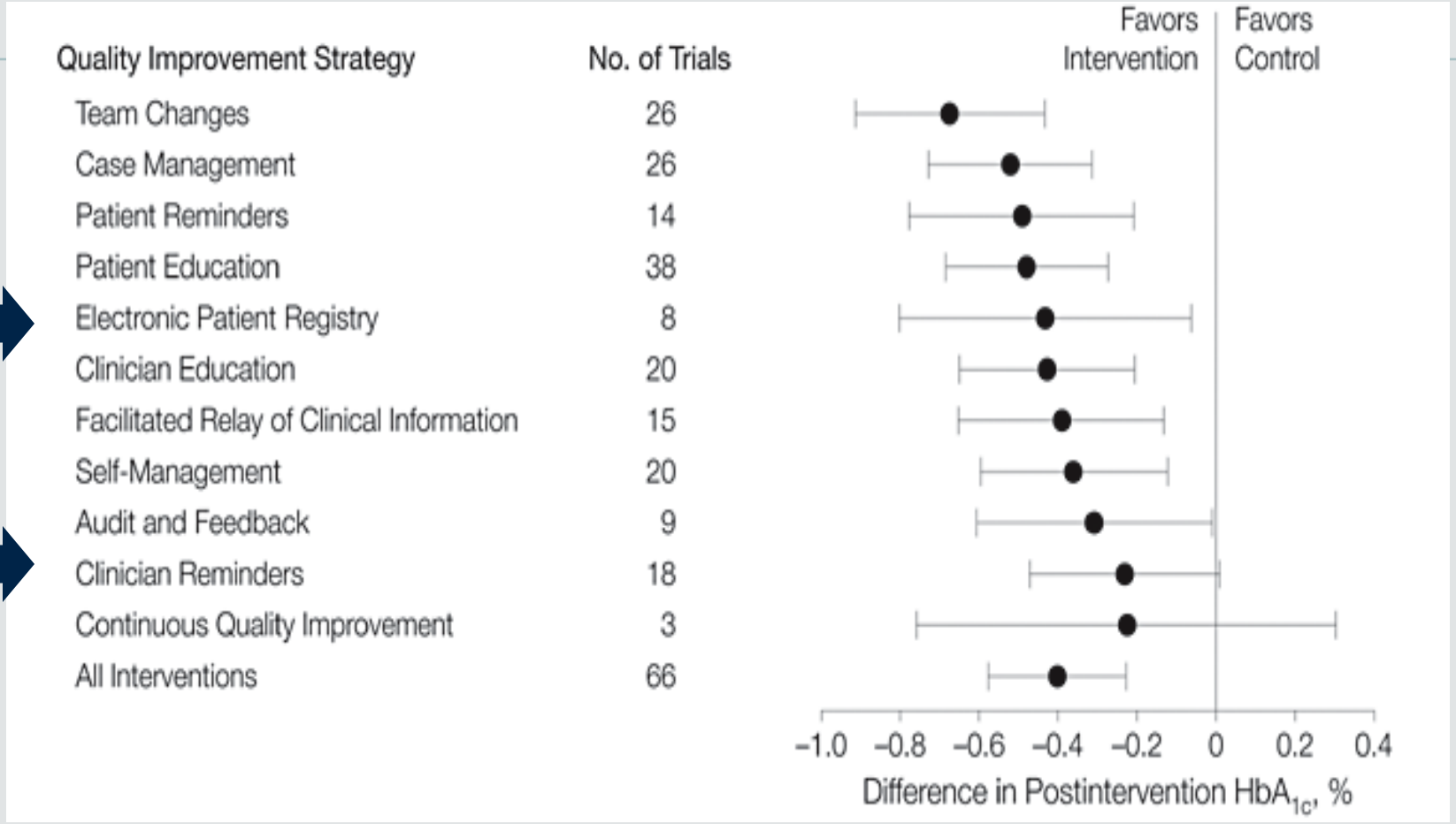
The Effectiveness of QI Strategies: Findings from a Recent Review of Diabetes Care



Shojania, K. G. et al. JAMA 2006;296:427-440.

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Organizational characteristics of Medicare Managed Care Plans by Diabetes Quality

Characteristic	High performing Plans	Low performing Plans	P
HbA1c >9.5	20%	49%	
Use of a Registry	78%	40%	.02
Any Use of an EMR	50%	25%	.11
Computerized Reminders	39%	5%	.01

Fleming et al. Am J Managed Care 2004 10: 934

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Modeling the Impacts of IT on Diabetes Quality: Changes from Baseline

	HbA1c	SBP	Cholesterol
Disease Management	- 0.24%	- 5 mm	-11 mg/dl
Registries	-0.50%	- 1 mm	- 31 mg/dl
Decision Support	-0.28%	+4 mm	-5 mg/dl

Bu et al. Diabetes Care 2007; 30:1137

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Clinical Information System: Registry

- A database of clinically useful and timely information on all patients provides reminders and feedback and facilitates care planning for individuals or populations, and proactive care

- Many commercially available EHRs do not have these capabilities

Toward a chronic care oriented system

Reviews of interventions in other conditions show that practice changes are similar across conditions

Integrated changes with components directed at:

- **use of non-physician team members,**
- **planned encounters,**
- **modern self-management support,**
- **care management for high risk patients**
- **electronic registry functionality and decision support**

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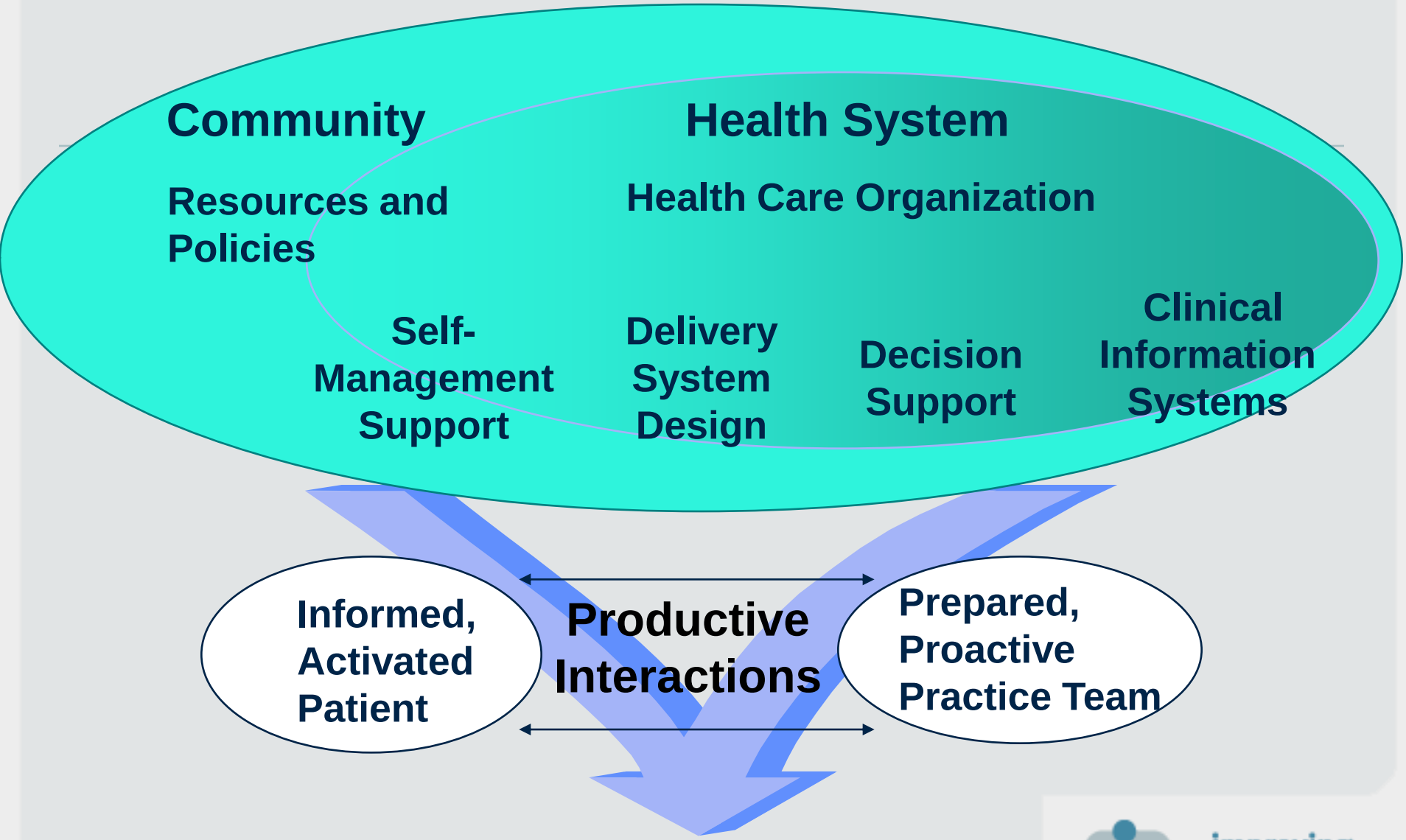
Chronic Care Model



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Does the CCM Work?

The Evidence Base

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Organizing the Evidence

1. Randomized controlled trials (RCTs) of interventions to improve chronic care
2. Studies of the relationship between organizational characteristics and quality improvement
3. Evaluations of the use of the CCM in Quality Improvement
4. RCTs of CCM-based interventions
5. Cost-effectiveness studies

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3: Evaluations of the Use of CCM in Quality Improvement

- Largest concentration of literature
- Includes RAND Evaluation of ICIC
- Wide variety in quality and type of evaluation design
- Majority of studies focus on diabetes

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3: RAND Evaluation of Chronic Care Collaboratives

- Two major evaluation questions:
  1. Can busy practices implement the CCM?
  2. If so, would their patients benefit?
- Studied 51 organizations in four different collaboratives, 2132 BTS patients, 1837 controls with asthma , CHF, diabetes
- Controls generally from other practices in organization
- Data included patient and staff surveys, medical record reviews

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3: RAND Findings Implementation of the CCM

- Organizations made average of 48 changes in 5.8/6 CCM areas
- IT received most attention, community linkages the least
- One year later, over 75% of sites had sustained changes, and a similar number had spread to new sites or new conditions.

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3: RAND Findings (2) Patient Impacts

- Diabetes pilot patients had significantly reduced CVD risk (pilot > control), resulting in a reduced risk of one cardiovascular disease event for every 48 patients exposed.
- CHF pilot patients more knowledgeable and more often on recommended therapy, had 35% fewer hospital days and fewer ER visits
- Asthma and diabetes pilot patients more likely to receive appropriate therapy
- Asthma pilot patients had better QOL

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New Models of Primary Care

- AAFP – combines CCM, medical home, and pay for coordination and performance
- ACP – “advanced medical home” has same three ingredients

Essential Element of Good Chronic Illness Care

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What characterizes an “informed, activated patient”?

They have the motivation, information, skills, and confidence necessary to effectively make decisions about their health and manage it

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What characterizes a “prepared” practice team?

Use planned interactions and always have the patient information, decision support, and resources necessary to deliver high-quality care

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Lessons learned in chronic illness care improvement

- Mostly reaching early adopters
- Practice redesign is very difficult in the absence of a larger, supportive “system”, especially for smaller practices
- Perverse payment was an obstacle but didn’t stop motivated practices
- Lack of registry functionality a major barrier

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Can we reach the majority of practices and patients?

1. Do the successes of large systems like the VA or BPHC have relevance for the larger, disorganized medical community?
2. Can “systemness” be a community property?
3. What are its key components?

King's Fund Study of Organizations with Best HEDIS Chronic Illness Scores

Organizational factors supportive of high quality chronic care:

- **Strategic values and leadership that support long term investment in managing chronic diseases**
- **Well aligned goals between physicians and corporate managers**
- **Integration of primary and specialty care**
- **Investment in information technology systems and other infrastructure to support chronic care**
- **Use of performance measures and financial incentives to shape clinical behavior**
- **Use of explicit improvement models—usually the Chronic Care Model**

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What's needed to improve chronic illness care for the population?

- Commitment and Leadership
- Collaboration among different stakeholders
- Measurement (and incentives)
- Infrastructure support
- Active program of practice change

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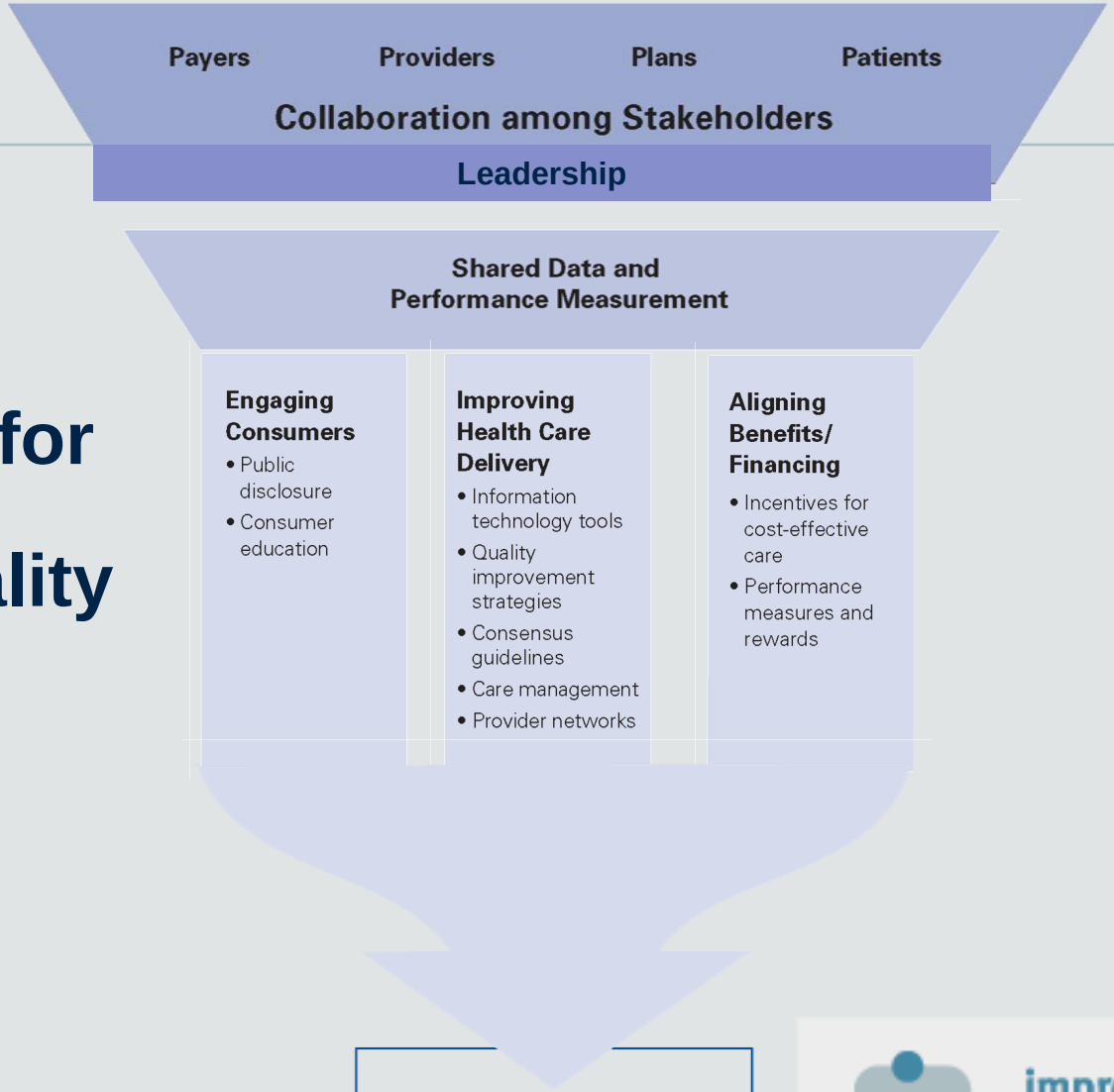
A Framework for Regional Quality Improvement



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Shared Data and Performance Measurement

Goals:

- To motivate and guide provider QI
- To guide regional improvement efforts
- To educate consumers
- To support public health

?? To influence purchasing decisions

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Improving Health Care Delivery

- Information technology tools
- Quality improvement strategies
- Consensus guidelines
- Care management
- Provider networks

Goal: To give providers the infrastructure and QI support that will enable them to redesign their care systems

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Engaging Consumers

- Public disclosure
- Consumer education

Goals

1. To support consumer self-management and decision-making
2. To increase consumer participation and control

?? To influence consumer choice of provider

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Aligning Benefits/ Financing

- Incentives for cost-effective care
- Performance measures and rewards

Goals

1. To motivate providers to redesign their care system
2. To help providers acquire needed infrastructure

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A Framework or Blueprint for Regional Quality Improvement

- Needs to quickly assemble and contribute evidence e.g.,little evidence that public disclosure influences consumer behavior
- Should clarify primary purposes and goals e.g., is it acceptable to use collaboratively obtained data to prune networks?
- But hopefully will accelerate progress toward the vision laid out in “Crossing the Quality Chasm”

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Contact us:

- **www.improvingchroniccare.org**

thanks

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